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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/607,871	MCVOY ET AL.	
	Examiner	Art Unit	
	SRIRAMA CHANNAVAJJALA	2166	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 December 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *48-84* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *48-84* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to RCE

1. Claims 48-84 are pending in this application.

2. Examiner acknowledges applicant's amendment to claims 48,55,65,74filed on 12/10/2009

3. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed 1/19/2007 in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/10/2009 has been entered.

4. Examiner acknowledges applicant's amendment filed on 2/11/2009.

5. Claims 48,55,65,74 have been amended [7/20/2008].

6. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed 1/19/2007 in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7/20/2008 has been entered and a non-final Office action was mailed on 8/11/2008.

Drawings

7. The Drawings filed on 6/27/2003 are acceptable for examination purpose

35 USC § 112

8. In view of applicant's arguments at page 11-12, the rejection under 112 first paragraph is hereby withdrawn.

35 USC § 101

9. In view of applicant's amendment to claims 48,55,65,74 the rejection under 35 USC 101 as set forth in the previous office action is hereby withdrawn.

Double Patenting

10. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory

double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 48-84 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 24,30,36 [as filed on 5/13/2009] of co-pending Application No. ***10/899,560***. Although the conflicting claims are not identical, they are not patentably distinct from each other because of following reasons:

Claims 24,30,36 [as filed on 5/13/2009] of Patent Application No. ***10/899,560*** contain(s) every element of claims 48-84 of the instant application and thus anticipate the claim(s) of the instant application. Claims of the instant application therefore are not patently distinct from the earlier patent claims and as such are unpatentable over obvious-type double patenting. A later patent/application claim is not patentably distinct from an earlier claim if the later claim is anticipated by the earlier claim.

"A later patent claim is not patentably distinct from an earlier patent claim if the later claim is obvious over, or anticipated by, the earlier claim. In re Longi, 759 F.2d at 896,225 USPQ at 651 (affirming a holding of obviousness-type double patenting

because the claims at issue were obvious over claims in four prior art patents); In re Berg, 140 F.3d at 1437, 46 USPQ2d at 1233 (Fed. Cir. 1998) (affirming a holding of obviousness-type double patenting where a patent application claim to a genus is anticipated by a 35 patent claim to a species within that genus). " ELI LILLY AND COMPANY v BARR LABORATORIES, INC., United States Court of Appeals for the Federal Circuit, ON PETITION FOR REHEARING EN BANC (DECIDED: May 30, 2001).

"Claim 12 and Claim 13 are generic to the species of invention covered by claim 3 of the patent. Thus, the generic invention is "anticipated" by the species of the patented invention. Cf., Titanium Metals Corp. v. Banner, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985) (holding that an earlier species disclosure in the prior art defeats any generic claim) 4. This court's predecessor has held that, without a terminal disclaimer, the species claims preclude issuance of the generic application. In re Van Ornum, 686 F.2d 937, 944, 214 USPQ 761,767 (CCPA 1982); Schneller, 397 F.2d at 354. Accordingly, absent a terminal disclaimer, claims 12 and 13 were properly rejected under the doctrine of obviousness-type double patenting." (In re Goodman (CA FC) 29 USPQ2d 2010 (12/3/1993).

11. Claims 48,55,65,74 are provisionally rejected on the ground of nonstatutory obviousness- type double patenting as being unpatentable over claims 1,20 [as amended 9/11/2009] of co-pending Application No. ***10700,017***. Although the

conflicting claims are not identical, they are not patentably distinct from each other because of following reasons:

Claims 1,20 of Patent Application No. ***10700,017*** contain(s) every element of claims 48,55,65,74 of the instant application and thus anticipate the claim(s) of the instant application. Claims of the instant application therefore are not patently distinct from the earlier patent claims and as such are unpatentable over obvious-type double patenting. A later patent/application claim is not patentably distinct from an earlier claim if the later claim is anticipated by the earlier claim.

"A later patent claim is not patentably distinct from an earlier patent claim if the later claim is obvious over, or anticipated by, the earlier claim. In re Longi, 759 F.2d at 896, 225 USPQ at 651 (affirming a holding of obviousness-type double patenting because the claims at issue were obvious over claims in four prior art patents); In re Berg, 140 F.3d at 1437, 46 USPQ2d at 1233 (Fed. Cir. 1998) (affirming a holding of obviousness-type double patenting where a patent application claim to a genus is anticipated by a 35 patent claim to a species within that genus). " ELI LILLY AND COMPANY v BARR LABORATORIES, INC., United States Court of Appeals for the Federal Circuit, ON PETITION FOR REHEARING EN BANC (DECIDED: May 30, 2001).

"Claim 12 and Claim 13 are generic to the species of invention covered by claim 3 of the patent. Thus, the generic invention is "anticipated" by the species of the

patented invention. Cf., Titanium Metals Corp. v. Banner, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985) (holding that an earlier species disclosure in the prior art defeats any generic claim) 4. This court's predecessor has held that, without a terminal disclaimer, the species claims preclude issuance of the generic application. In re Van Ornum, 686 F.2d 937, 944,214 USPQ 761,767 (CCPA 1982); Schneller, 397 F.2d at 354. Accordingly, absent a terminal disclaimer, claims 12 and 13 were properly rejected under the doctrine of obviousness-type double patenting." (In re Goodman (CA FC) 29 USPQ2d 2010 (1213/1993).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

13. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

14. Claims 48--84 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arun et al. [hereafter Arun] U.S. Patent No. 6,631,386 in view of Baisley et al. [hereafter Baisley] U.S. Patent No. 6415299

15. With respect to claim 48, Arun teaches a first computer including a first version of the associative array stored in a first memory in communication with a processor include in the first computer (col 4, line 49-60, fig 1,col 26, line 54-63), wherein the first version of the associative array comprises a first key/value pair (i.e., a first user computer storing a record having a plurality of field/value pairs, such as row 20(1) in fig. 2 as a working copy, fig. 4, lines 20-54 in col. 2, and lines 52-67 in col. 26);

Arun teaches a second computer including a second version of the associative array stored in a second memory in communication with a processor included in the

second computer'(col 4, line 49-60, fig 1,col 26, line 54-63), wherein the second version of the associative array comprises a second key/value pair (i.e., a second user computer storing a record having a plurality of field/value pairs, such as row 20(1) in fig. 2 as a working copy, fig. 4, lines 20-54 in col. 2, and lines 52-67 in col. 26);

Arun teaches a version controller, adapted to communicate with the first computer and the second computer (i.e., version control subsystem 11 in fig. 1 communicating with users), the version controller for merging modifications from the first version of the associative array and the second version of the associative array (i.e., items 154, 156, and 157 in figs. 6A and 6B) and resolving a plurality of conflicts between the first version of the associative array and the second version of the associative array (i.e., item 153 in fig. 6, col 17, line 9-17, line 59-67, col 18, line 1-12), by receiving a plurality of different user inputs responsive to identifying the plurality of conflicts each individual user input (col 13, line 61-67, col 14, line 23-29, col 17, line 59-65) specifying a conflict resolution procedure for an individual conflict, (i.e., items 152-153 in fig. 6), Arun specifically teaches not only user interface where user initiating "conflict resolution", but also maintaining updated version records as detailed in col 17, line 59-67.

Arun does not explicitly disclose generating a third version of the associative array by such merging and resolving conflicts; and storing the third version of the associative array in a memory. However, Baisley teaches generating a third version of the associative array by merging modifications from the first version of an object and the

second version of the object and resolving conflicts between the first version of the object and the second version of the object (i.e., merging changes in the multiple versions into a specific version of the object, fig 3, col 5, line 20-37, line 38-47]) Baisley specifically teaches model versions maintaining version attributes, particularly, multiple versions in a version tree for example as detailed in fig 3, also teaches performing the "merge operation" and resolving conflicts between versions as detailed in col 5, line 20-37, line 38-47; 'and storing the third version of the associative array in a memory" (col 4, line 23-27).

It would have been obvious to one of the ordinary skill in the art at the time of applicant's invention to incorporate the teachings of merging versions of a model particularly merging a source version of a target version of a model of Baisley's into database version control , particularly versioning control module of Arun et al. because both Baisley,Arun are directed to version management [Baisley: fig 3, Abstract; Arun: Abstract, fig 1], and both Baisley, Arun teach "version tree" [Baisley: fig 3; Arun: fig 3] and both Baisley and Arun are from same field of endeavor. Because both Baisley, Arun teach "version management" particularly resolving conflicts between versions [Baisley: Abstract; Arun: Abstract], it would have been obvious to one skilled in the art to to combine the references to achieve the "predictable result" of not only merging multiple versions, resolving conflict, but also maintaining respective attribute value conflict to the user for examination and resolution when future versions are merged.

16. With respect to claim 49, Arun teaches the version controller further generates a directed acyclic graph, wherein the directed acyclic graph identifies a modification to the associative array by the first version of the associative array and a modification to the associative array by the second version of the associative array (fig. 3 and fig. 5).

17. The limitations of claim 50 are rejected in the analysis of claims 48-49 above, and the claim is rejected on that basis.

18. With respect to claim 51, Arun teaches the version controller further generates a changeset including modifications to the associative array by the first version of the associative array and the second version of the associative array (i.e., item 151 in fig. 6). With respect to claim 52, Arun teaches the version controller further executes at least one version control operation from a group of: creating the associative array, checking out the associative array, checking in the associative array, generating a report, cloning the associative array to generate a cloned associative array and displaying differences between the first version of the associative array and the second associative array (i.e., checking out the associative array, fig. 4, lines 13-31 in col. 26, and lines 20-54 in col. 2).

19. With respect to claim 53, Arun teaches the associative array comprises a file including: a key; and a value associated with the key (i.e., records in the form of files, lines 27-33 in col. 3 and lines 23-28 in col. 26).

20. With respect to claim 54, Arun teaches the version controller further organizes a plurality of associative arrays as a database table (fig. 2 and lines 49-67 in col. 4).

21. With respect to claim 55, Arun teaches generating a first version of the associative array by modifying a first key/value pair, wherein the first version of the associative array is a derivative of the associative array (i.e., a first user having a record including a plurality of field/value pairs, such as row 20(1) in fig. 2 as a working copy and modifying the record, fig. 3, fig. 4, fig. 5, lines 20-54 in col. 2, and lines 52-67 in col. 26); which is stored in a first memory in communication with a first processor" (col 4, line 49-60, fig 1,col 26, line 54-63).

Arun teaches generating a second version of the associative array by modifying a second key/value pair, wherein the second version of the associative array is a derivative of the associative array (i.e., a second user having the record including a plurality of field/value pairs, such as row 20(1) in fig. 2 as a working copy and modifying the record, fig. 3, fig. 4, fig. 5, lines 20-54 in col. 2, and lines 52-67 in col. 26); which is stored in a first memory in communication with a first processor" (col 4, line 49-60, fig 1,col 26, line 54-63).

Arun teaches merging modifications from the first version of the associative array and the second version of the associative array (i.e., items 154, 156, and 157 in figs. 6A and 6B) and resolving a plurality of conflict between the first version of the associative array and the second version of the associative array (i.e., item 153 in fig. 6, col 17, line 9-17, line 59-67, col 18, line 1-12), by receiving a plurality of different user inputs

responsive to identifying the plurality of conflicts each individual user input (col 17, line 59-65) specifying a conflict resolution procedure for an individual conflict (i.e., items 152-153 in fig. 6, col 17, line 59-67, col 18, line 28-51), Arun specifically teaches not only user interface where user initiating "conflict resolution", but also maintaining updated version records as detailed in col 17, line 59-67, col 18, line 28-51.

Arun does not explicitly disclose generating a third version of the associative array by such merging and resolving conflicts; and storing the third version of the associative array in a memory. However, Baisley teaches generating a third version of the associative array by merging modifications from the first version of an object and the second version of the object and resolving conflicts between the first version of the object and the second version of the object (i.e., merging changes in the multiple versions into a specific version of the object, fig 3, col 5, line 20-37, line 38-47]) Baisley specifically teaches model versions maintaining version attributes, particularly, multiple versions in a version tree for example as detailed inn fig 3, also teaches performing the "merge operation" and resolving conflicts between versions as detailed in col 5, line 20-37, line 38-47; and storing the third version of the associative array in a memory" (col 4, line 23-27).

It would have been obvious to one of the ordinary skill in the art at the time of applicant's invention to incorporate the teachings of merging versions of a model particularly merging a source version of a target version of a model of Baisley's into database version control , particularly versioning control module of Arun et al. because

both Baisley, Arun are directed to version management [Baisley: fig 3, Abstract; Arun: Abstract, fig 1], and both Baisley, Arun teach "version tree" [Baisley: fig 3; Arun: fig 3] and both Baisley and Arun are from same field of endeavor. Because both Baisley, Arun teach "version management" particularly resolving conflicts between versions [Baisley: Abstract; Arun: Abstract], it would have been obvious to one skilled in the art to combine the references to achieve the "predictable result" of not only merging multiple versions, resolving conflict, but also maintaining respective attribute value conflict to the user for examination and resolution when future versions are merged.

22. With respect to claim 56, Arun teaches generating a first change set identifying the modifications to the associative array in the first version of the associative array and generating a second change set identifying the modifications to the associative array in the second version of the associative array (i.e., item 151 in fig. 6). Arun teaches applying the modifications identified by the first changeset and the second changeset to the associative array (i.e., items 154, 156, and 157 in figs. 6A and 6B). Therefore, the limitations of claim 56 are rejected in the analysis of claim 55 above, and the claim is rejected on that basis. With respect to claim 57, Arun teaches generating a directed acyclic graph, the directed acyclic graph identifying a difference between a version of the associative array and the associative array (fig. 3 and fig. 5). Therefore, the limitations of claim 57 are rejected in the analysis of claims 55-56 above, and the claim is rejected on that basis.

23. With respect to claim 58, Arun teaches the directed acyclic graph identifies the modification to the associative array by the first version of the associative array and the modification to the associative array by the second version of the associative array (fig. 3 and fig. 5). Therefore, the limitations of claim 58 are rejected in the analysis of claim 57 above, and the claim is rejected on that basis.

24. With respect to claim 59, Arun teaches comparing key/value pairs in the first version of the associative array, the second version of the associative array and the associative array and responsive to conflicts in the comparison of key/value pairs, prompting a user to specify a value for a conflicting key/value pair (i.e., items 152-153 in fig. 6).

25. With respect to claim 60, Arun teaches displaying a version of the associative array as a database record (fig. 2 and lines 49-67 in col. 4).

Therefore, the limitations of claim 60 are rejected in the analysis of claim 55 above, and the claim is rejected on that basis.

26. With respect to claim 61, Arun teaches displaying a plurality of modified associative arrays as a database table (fig. 2 and lines 49-67 in col. 4).

27. With respect to claim 62, Baisley teaches 'generating a report including the third version of the associative array col 2, line 19-28, and data or metadata describing at

least one of the directed acyclic graph, the merged modification and the conflicts [col 5, line 28-37, line 42-53, table I-II]

28. With respect to claim 63, Arun teaches selecting a conflict, applying an algorithm having knowledge of the data in the associative array, and modifying the version of the associative array responsive to a result of the applied algorithm (fig. 6). Therefore, the limitations of claim 63 are rejected in the analysis of claim 56 above, and the claim is rejected on that basis.

29. With respect to claim 64, Arun teaches selecting a key/value pair having conflicting values in the first version of the associative array and the second version of the associative array, evaluating historical values of the selected conflicting key/value pair, and modifying the selected key/value pair responsive to the evaluation (fig. 6).

30. With respect to claim 65, Arun teaches a data store (i.e., database in fig. 1) including the associative array, the associative array comprising a file including at least one key/value pair (i.e., records in the form of files, lines 27-33 in col. 3 and lines 23-28 in col. 26), a first version of the associative array having a first key/value pair and a second version of the associative array having a second key/value pair (i.e., each first and second user having a record including a plurality of field/value pairs, such as row 20(1) in fig. 2 as a working copy and modifying the record, fig. 3, fig. 4, fig. 5, lines 20-54 in col. 2, and lines 52-67 in col. 26);

Arun teaches a version controller adapted to communicate with the data store (i.e., version control subsystem 11 in fig. 1 communicating with the database), the version controller for merging modifications from the first version of the associative array and the second version of the associative array (i.e., items 154, 156, and 157 in figs. 6A and 6B) and resolving a plurality of conflicts between the first version of the associative array and the second version of the associative array (i.e., item 153 in fig. 6, col 17, line 9-17, line 59-67, col 18, line 1-12,), by receiving a plurality of different user inputs responsive to identifying the plurality of conflicts each individual user input (col 17, line 59-65) specifying a conflict resolution procedure for an individual conflict (i.e., items 152-153 in fig. 6, col 17, line 59-67 col 18, line 28-51), Arun specifically teaches not only user interface where user initiating "conflict resolution", but also maintaining updated version records as detailed in col 17, line 59-67 col 18, line 28-51) .

Arun does not explicitly disclose generating a third version of the associative array by such merging and resolving conflicts, 'storing the third version of the associative array in a memory in communication with a processor. However, Baisley teaches generating a third version of the associative array by merging modifications from the first version of an object and the second version of the object and resolving conflicts between the first version of the object and the second version of the object (i.e., merging changes in the multiple versions into a specific version of the object, fig 3, col 5, line 20-37, line 38-47]) Baisley specifically teaches model versions maintaining version attributes, particularly, multiple versions in a version tree for example as

detailed inn fig 3, also teaches performing the "merge operation" and resolving conflicts between versions as detailed in col 5, line 20-37, line 38-47; storing the third version of the associative array in a memory" (col 4, line 23-27).

It would have been obvious to one of the ordinary skill in the art at the time of applicant's invention to incorporate the teachings of merging versions of a model particularly merging a source version of a target version of a model of Baisley's into database version control , particularly versioning control module of Arun et al. because both Baisley,Arun are directed to version management [Baisley: fig 3, Abstract; Arun: Abstract, fig 1], and both Baisley, Arun teach "version tree" [Baisley: fig 3; Arun: fig 3] and both Baisley and Arun are from same field of endeavor. Because both Baisley, Arun teach "version management" particularly resolving conflicts between versions [Baisley: Abstract; Arun: Abstract], it would have been obvious to one skilled in the art to to combine the references to achieve the "predictable result" of not only merging multiple versions, resolving conflict, but also maintaining respective attribute value conflict to the user for examination and resolution when future versions are merged.

31. With respect to claim 66, Arun teaches the version controller further generates a directed acyclic graph, wherein the directed acyclic graph identifies a modification to the associative array by the first version of the associative array and a modification to the associative array by the second version of the associative array (fig. 3 and fig. 5).

32. With respect to claim 67, Arun teaches a communication module for connecting the version controller to a computer network and receiving a fourth version of the associative array including a modified key/value pair (i.e., version control subsystem 11 communicating a third user for a fourth version of the associative array in fig. 1).

33. With respect to claim 68, Arun teaches merging modification from the fourth version of the associative array with another version of the associative array (i.e., items 154, 156, and 157 in figs. 6A and 6B). Therefore, the limitations of claim 68 are rejected in the analysis of claims 65 and 67 above, and the claim is rejected on that basis.

34. With respect to claim 69, Arun teaches the version controller further resolves a conflict between the fourth version of the associative array and at least one from the group of the first version of the associative array, the second version of the associative array and the third version of the associative array (i.e., item 153 in fig. 6).

35. With respect to claim 70, Arun teaches the version controller further organizes a plurality of associative arrays as a database table (fig. 2 and lines 49-67 in col. 4).

36. With respect to claim 71, Arun teaches the associative array comprises a file including a key and a value (i.e., records in the form of files, lines 27-33 in col. 3 and lines 23-28 in col. 26).

37. With respect to claim 72, Baisley teaches 'associative array comprises an XML file including a key and a value associated with the key' [col 3, line 51-57]

38. With respect to claim 73, Arun teaches the data store further includes a specification file defining at least one of a default value associated with a key and a constraint on a value associated with a key (i.e., a default value in a field of a table, lines 16-27 in col. 6).

39. The limitations of claim 74 are rejected in the analysis of claim 55 above, and the claim is rejected on that basis.

40. The limitations of claim 75 are rejected in the analysis of claim 56 above, and the claim is rejected on that basis.

41. The limitations of claim 76 are rejected in the analysis of claim 57 above, and the claim is rejected on that basis.

42. The limitations of claim 77 are rejected in the analysis of claim 58 above, and the claim is rejected on that basis.

43. The limitations of claim 78 are rejected in the analysis of claim 59 above, and the claim is rejected on that basis.

44. The limitations of claim 79 are rejected in the analysis of claim 60 above, and the claim is rejected on that basis.

45. The limitations of claim 80 are rejected in the analysis of claim 61 above, and the claim is rejected on that basis.

46. The limitations of claim 81 are rejected in the analysis of claim 62 above, and the claim is rejected on that basis.

47. With respect to claim 82, Arun teaches selecting a key/value pair having conflicts values in the first version of the associative array and the second version of the associative array (i.e., items 151-152 in fig. 6), prompting a user to input a value for the selected key/value pair (i.e., item 153 in fig. 6), and associating the user input value with the selected key/value pair (i.e., items 154, 156, and 157 in figs. 6A and 6B).

48. The limitations of claim 83 are rejected in the analysis of claim 64 above, and the claim is rejected on that basis.

49. The limitations of claim 84 are rejected in the analysis of claim 55 above, and the claim is rejected on that basis.

Response to Arguments

50. Applicant's arguments filed with respect to claims 48-84 filed on 12/10/2009, with respect to claims 48,55,65,74 have been fully considered but they are not persuasive., for examiner's response, see discussion below:

a) At page 16-17, claim 48,55,65,74, applicant argues that "Arun does not disclose at least the claimed element "resolving a plurality of conflicts between the first version of the associative array and the second version of the associative array by receiving a plurality of user inputs responsive to identifying the plurality of conflicts, each user input specifying a conflict resolution procedure for an individual conflict", Rather, Arun describes a database version control system where a database table includes "at least some records having "a version control field including version control information". Regarding the resolution of conflicts between versions, at most Arun describes a conflict resolution operation in which a user checking a checked-out record version determines whether the checked-out record version or a record version stored in the database is preserved for later use [Arun: col 3, line 17-20]....Thus for one or more conflicts between a first record version and a second record version, Arun merely provides a single user input that allows the user to choose between (a) resolving all conflicts between the two records versions with data from the second record version or (b) resolving all conflicts between the two record versions with data from the second record version. See Arun, Fig 6 and Fig 6A. Arun only allows for an additional user input if conflicts exist between one or more additional sets of record versions, in which case the

single user input process repeats for each set unitl no conflicts exist between any set of two or more records. See Arun, fig 6A, item 158, col 8. While Arun resolves multiple conflicts, a single user input is used to resolve all of the identified conflicts by selecting a version which is used to supply the output for all identified conflicts.

As to the above argument [a] examiner disagree with the applicant because the following reasons:

Under 35 USC 103(a) – Principls of Law:

> "Section 103 forbids issuance of a patent when 'the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.'" KSR Int'l Co. v. Teleflexlnc., 127 S. Ct. 1727, 1734 (2007).

In KSR, the Supreme Court emphasized "the need for caution in granting a patent based on the combination of elements found in the prior art," Id. at 1739, and discussed circumstances in which a patent might be determined to be obvious. KSR, 127 S. Ct. at 1739 (citing Graham v. John Deere Co., 383 U.S. 1, 12 (1966)). The Court reaffirmed principles based on its precedent that "[t]he combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results." Id. The operative question in this "functional approach" is thus "whether the improvement is more than the predictable use of prior art elements according to their established functions." Id. at 1740.

The Federal Circuit recently recognized that "[a]n obviousness determination is not the result of a rigid formula disassociated from the consideration of the facts of a

case. Indeed, the common sense of those skilled in the art demonstrates why some combinations would have been obvious where others would not." Leapfrog Enters., Inc. v. Fisher-Price, Inc., 485 F.3d 1157, 1161 (Fed. Cir. 2007) (citing KSR, 127 S. Ct. 1727, 1739 (2007)). The Federal Circuit relied in part on the fact that Leapfrog had presented no evidence that the inclusion of a reader in the combined device was "uniquely challenging or difficult for one of ordinary skill in the art" or "represented an unobvious step over the prior art." Id. (citing KSR, 127 S. Ct. at 1740-41).

One cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. In re Merck & Co., Inc., 800 F.2d 1091, 1097 (Fed. Cir. 1986)..

Examiner notes that Arun clearly teaches "version control system"[see Abstract], particularly, version control tree or hierarchy of states of versions, where conflicts are discovered and resolved [see Abstract]. Further, it is noted that Arun is not limited to single conflict resolving, but focused on multiple records including specific version control field where each version is identified with version identifier and related information [see fig 2, col 5, line 57-67, col 6, line 1-5]. As noted , Arun not only teaches user interface where individual user has the ability to specify particular record[s] with respect to version identifier to discover specific "individual conflict[s]", but also resolving conflict[s] and maintaining updated version records as detailed in col 17, line 59-67. More particularly, it is an objective of Arun to detect conflicts, and resolving conflicts in order to maintain updated "version control information" data records in the database [see Abstract]. Furthermore, examiner agree with the applicant that Arun does teach

not only teaches user interface allows to input required information and/or select specific record version but also resolves the conflict , i.e. Arun specifically teaches "conflict resolution operation" as detailed in col 17, line 59-65, further examiner acknowledges applicant's particular assertion of Arun resolves multiple conflicts, though user interface[[remarks: page 17], also noted that Arun specifically teaches multiple user input is used to resolve all of the identified conflicts particularly selecting version control system as detailed in fig 1, ol 4, line 55-60,col 6, line 28-31.

b) At page 17-19, Claims 48,55,65,74, applicant argues that "Arun does not allow a user to individually resolve multiple conflicts by selecting data from different versions using user input for each conflict encountered, but rather users a single user input to specify the version used to resolve all conflicts encountered. Hence Arun does not disclose at least the claimed element "resolving a plurality of conflicts between the first version of the associative array and the second version of the associate array by receiving a plurality of user inputs responsive to identifying the plurality of conflicts, each user input specifying a conflict resolution procedure for an individual conflict".

Baisley does not remedy the deficient disclosure of Arun. Rather, Baisley mergers a source version of a model into a target version of the model in an object oriented repository....A collection of versions occurring in a history of the source version is used to build a first list while a collection of versions occurring in a history of the source version is used to build a second list. The first and second lists are combined , either the first list or second list is identified as the non-preferred history and the first list,

including the history of the source version, is added to the history of the target version. Baisley, col 2, line 10-23. Conflicts in the dual list of source version history and target version history are reported and resolved by adding the target version to a list of end versions on each conflicting attribute value in the non-preferred history.....

Thus, neither of the cited references, taken alone or in combination, teaches or suggests the claimed invention.

As to the argument [b], Under 35 USC § 103, by showing insufficient evidence of prima facie obviousness or by rebutting the primafacie case with evidence of secondary indicia of nonobviousness.") (quoting In re Rouffet, 149 F.3d 1350, 1355 (Fed. Cir. 1998)).

> "Section 103 forbids issuance of a patent when 'the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.'" KSR Int'l Co. v. Teleflex Inc., 127 S. Ct. 1727, 1734 (2007).

The question of obviousness is resolved on the basis of underlying factual determinations including (1) the scope and content of the prior art, (2) any differences between the claimed subject matter and the prior art, (3) the level of skill in the art, and (4) where in evidence, so-called secondary considerations. Graham v. John Deere Co., 383 U.S. 1, 17-18 (1966). See also KSR, 127 S. Ct. 1727, 1734 ("While the sequence of these questions might be reordered in any particular case, the [Graham] factors continue to define the inquiry that controls.")

"The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results."). Leapfrog Enter., Inc. v. Fisher-Price, Inc., 485 F.3d 1157, 1161 (Fed. Cir. 2007) (quoting KSR Int'l v. Teleflex, Inc., 127 S. Ct. 1727, 1739(2007)). "One of the ways in which a patent's subject matter can be proved obvious is by noting that there existed at the time of invention a known problem for which there was an obvious solution encompassed by the patent's claims." KSR, 127 S. Ct. at 1742.

Discussing the obviousness of claimed combinations of elements of prior art, KSR explains:

> When a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability. For the same reason, if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill. Sakraida [v. AG Pro, Inc., 425 U.S. 273 (1976)] and Anderson's-Black Rock[, Inc. v. Pavement Salvage Co., 396 U.S. 57 (1969)] are illustrative--a court must ask whether the improvement is more than the predictable use of prior art elements according to their established functions.

KSR, 127 S. Ct. at 1740. Where the claimed subject matter cannot be fairly characterized as involving the simple substitution of one known element for another or the mere application of a known technique to a piece of prior art ready for the improvement, a holding of obviousness can be based on a showing that there was "an apparent reason to combine the known elements in the fashion claimed." KSR, 127 S.

Ct. at 1741. Such a showing requires "some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." Id., 127 S. Ct. at 1741 (quoting In re Kahn, 441 F.3d 977, 987(Fed. Cir. 2006)).

The reasoning given as support for the conclusion of obviousness can be based on interrelated teachings of multiple patents, the effects of demands known to the design community or present in the marketplace, and the background knowledge possessed by a person having ordinary skill in the art. KSR, 127 S. Ct. at 1740-41. See also Dystar Textilfarben GmbHv. C.H. Patrick Co., 464 F.3d 1356, 1368 (Fed. Cir. 2007).

Examiner noted that court has recently reaffirmed that:

> [A]n implicit motivation to combine exists not only when a suggestion may be gleaned from the prior art as a whole, but when the 'improvement' is technology-independent and the combination of references results in a product or process that is more desirable, for example because it is stronger, cheaper, cleaner, faster, lighter, smaller, more durable, or more efficient. Because the desire to enhance commercial opportunities by improving a product or process is universal-and even common-sensical-we have held that there exists in these situations a motivation to combine prior art references even absent any hint of suggestion in the references themselves. In such situations, the proper question is whether the ordinary artisan possesses knowledge and skills rendering him capable of combining the prior art references.

Leapfrog, 485 F.3d at 1162 (holding it "obvious to combine the Bevan device with the SSR to update it using modem electronic components in order to gain the commonly

understood benefits of such adaptation, such as decreased size, increased reliability, simplified operation, and reduced cost").

Also, a reference may suggest a solution to a problem it was not designed to solve and thus does not discuss. KSR, 127 S. Ct. at 1742 ("Common sense teaches.., that familiar items may have obvious uses beyond their primary purposes, and in many cases a person of ordinary skill will be able to fit the teachings of multiple patents together like pieces of a puzzle .....A person of ordinary skill is also a person of ordinary creativity, not an automaton.").

The prior art relied on to prove obviousness must be analogous art. As explained in Kahn,

> the 'analogous-art' test-has long been part of the primary Graham analysis articulated by the Supreme Court. See Dann [v. Johnston,] 425 U.S. [219,] 227-29 (1976), Graham, 383 U.S. at 35. The analogous-art test requires that the Board show that a reference is either in the field of the applicant's endeavor or is reasonably pertinent to the problem with which the inventor was concerned in order to rely on that reference as a basis for rejection. In re Oetiker, 977 F.2d 1443, 1447 (Fed. Cir. 1992). References are selected as being reasonably pertinent to the problem based on the judgment of a person having ordinary skill in the art. Id. ("[I]t is necessary to consider 'the reality of the circumstances,'-in other words, common sense-in deciding in which fields a person of ordinary skill would reasonably be expected to look for a solution to the problem facing the inventor." (quoting In re Wood, 599 F.2d 1032, 1036 (C.C.P.A. 1979))). Kahn, 441 F.3d at 986-87. See also In re Clay, 966 F.2d 656, 659 (Fed. Cir. 1992) ("[a] reference is reasonably pertinent if, even though it may be in a different field from that of the inventor's endeavor, it is one which, because of the matter with which it deals, logically would have commended itself to an inventor's attention in considering his problem.").

In view of KSR's holding that "any need or problem known in the field of

endeavor at the time of invention and addressed by the patent can provide a reason for combining the elements in the manner claimed," 127 S. Ct. at 1742 (emphasis added), it is clear that the second part of the analogous-art test as stated in Clay, supra, must be expanded to require a determination of whether the reference, even though it may be in a different field from that of the inventor's endeavor, is one which, because of the matter with which it deals, logically would have commended itself to an artisan's (not necessarily the inventor's) attention in considering any need or problem known in the field of endeavor. Furthermore, although under KSR it is not always necessary to identify a known need or problem as a motivation for modifying or combining the prior art, it is nevertheless always necessary that the prior art relied on to prove obviousness be analogous. See KSR, 127 S. Ct. at 1739. ("The Court [in United States v. Adams, 383 U.S. 39, 40 (1966)] recognized that when a patent claims a structure already known in the prior art that is altered by the mere substitution of one element for another known in the field, the combination must do more than yield a predictable result.") (emphasis added). See also Sakraida, 425 U.S. 273,280 (1976)

In this case, Arun specifically teaches not only user interface that allows users to edit or update data records, but also allows users to identify specific record[s], version identifier[s] "conflicts" and resolving accordingly [see Abstract, fig 6, element 152-153, col 17, line 59-65, col 18, line 28-51]. Further, it is noted that Arun specifically teaches "collaboration among users " using either same version or different version, particularly users can enable series of such versions associated with a state as detailed col 13, line 61-67, col 14, line 23-29, allows to resolve multiple conflicts between specific version[s]

or different version[s]., furthermore, Arun specifically supports multiple user interface ie. different user input in identifying specific conflict[s] for example as shown in fig 1 with respect to version control subsystem

The determination of obviousness must consider, inter alia, whether a person of ordinary skill in the art would have been motivated to combine the prior art to achieve the claimed invention and whether there would have been a reasonable expectation of success in doing so. Brown & Williamson Tobacco Corp. v. Philip Morris', Inc., 229 F.3d 1120, 1124 (Fed. Cir. 2000). Rotabo S.L., 77 USPQ2d 1865, t 869 (Fed. Cir. 2006). Where the teachings of two or more prior art references conflict, the Examiner must weigh the power of each reference to suggest solutions to one of ordinary skill in the art, considering the degree to which one reference might accurately discredit another. In re Young, 927 F.2d 588, 591 (Fed. Cir. 1991). If the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. In re Gordon, 733 F.2d 900, 902 (Fed. Cir. 1984.) Furthermore, examiner notes that court has held that "[a] reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant." In re Gurley, 27 F.3d 551,553 (Fed. Cir. 1994). See also Para-Ordnance Mfg. v. SGS Importers Int'l, 73 F.3d 1085, 1090 (Fed. Cir. 1995).

In this case, Baisley et al. is directed to object oriented database version model, more specifically handling version conflicts between source and target versions,

merging version and maintaining model in an object oriented repository [see Abstract], it is also noted that model including the information relating to each object, link, attribute value of versioned states, creating version graph [col 4, line 7-15], further allows to performing various operations that including conflict resolving, merging operations of all changes specifically applied to the objects associated with versions [col 5, line 27-47]

It is however, noted that Arun does not explicitly disclose generating a third version of the associative array by such merging and resolving conflicts. However, Baisley teaches generating a third version of the associative array by merging modifications from the first version of an object and the second version of the object and resolving conflicts between the first version of the object and the second version of the object (i.e., merging changes in the multiple versions into a specific version of the object, fig 3, col 5, line 20-37, line 38-47]) Baisley specifically teaches model versions maintaining version attributes, particularly, multiple versions in a version tree for example as detailed in fig 3, also teaches performing the "merge operation" and resolving conflicts between versions as detailed in col 5, line 20-37, line 38-47.

It would have been obvious to one of the ordinary skill in the art at the time of applicant's invention to incorporate the teachings of merging versions of a model particularly merging a source version of a target version of a model of Baisley's into database version control , particularly versioning control module of Arun et al. because both Baisley,Arun are directed to version management [Baisley: fig 3, Abstract; Arun: Abstract, fig 1], and both Baisley, Arun teach "version tree" [Baisley: fig 3; Arun: fig 3]

and both Baisley and Arun are from same field of endeavor. Because both Baisley, Arun teach "version management" particularly resolving conflicts between versions [Baisley: Abstract; Arun: Abstract], it would have been obvious to one skilled in the art to to combine the references to achieve the "predictable result" of not only merging multiple versions, resolving conflict, but also maintaining respective attribute value conflict to the user for examination and resolution when future versions are merged.

Conclusion

The prior art made of record

a.	US Patent No.	6631386
b.	US Patent No.	6415299

Examiner's Note: Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed

by the Examiner.

In the case of amending the Claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

The prior art made of record, listed on form PTO-892, and not relied upon, if any, is considered pertinent to applicant's disclosure.

If a reference indicated as being mailed on PTO-FORM 892 has not been enclosed in this action, please contact Lisa Craney whose telephone number is (571) 272-3574 for faster service.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Srirama Channavajjala whose telephone number is 571-272-4108. The examiner can normally be reached on Monday-Friday from 8:00 AM to 5:30 PM Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alam, Hosain, T, can be reached on (571) 272-3978. The fax phone numbers for the organization where the application or proceeding is assigned is 571-273-8300 Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free)

/Srirama Channavajjala/
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